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RECORDS
OF THE
AMERICAN SOCIETY
OF
NATURALISTS

VOLUME II
PART NINE

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1910

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RECORDS
OF THE
AMERICAN SOCIETY
OF
NATURALISTS

VOLUME II
PART NINE

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MEETINGS OF THE AMERICAN SOCIETY OF NATURALISTS

1. 1883. April 10-11....Springfield, Mass. Alpheus Hyatt, *Chairman*
2. 1883. Dec. 27-28....New York City...Alpheus Hyatt, *President*
3. 1884. Dec. 29-30....Washington, D. C. Alpheus Hyatt, "
4. 1885. Dec. 29-30....Boston, Mass.G. K. Gilbert,
5. 1886. Dec. 28, 29, 30. Philadelphia, Penn. G. K. Gilbert,
6. 1887. Dec. 27, 28, 29. New Haven, Conn. Harrison Allen,
7. 1888. Dec. 27-28....Baltimore, Md....Harrison Allen,
8. 1889. Dec. 27-28....New York City, George L. Goodale,
9. 1890. Dec. 31.....Boston, Mass.. H. Newell Martin,
10. 1891. Dec. 29-30....Philadelphia, Penn. Wm. North Rice,
11. 1892. Dec. 28-29....Princeton, N. J. Henry F. Osborn,
12. 1893. Dec. 27-28....New Haven, Conn. R. H. Chittenden,
13. 1894. Dec. 27-28....Baltimore, Md.C. S. Minot,
14. 1895. Dec. 26-27....Philadelphia, Penn.. E. D. Cope,
15. 1896. Dec. 29-30....Boston, Mass.....W. B. Scott,
16. 1897. Dec. 28-29 ... Ithaca, N. Y.....C. O. Whitman,
17. 1898. Dec. 29.....New York City.. H. P. Bowditch,
18. 1899. Dec. 28.....New Haven, Conn.. W. G. Farlow,
19. 1900. Dec. 27-28....Baltimore, Md.E. B. Wilson,
20. 1901. Dec. 31-Jan. 1,'02, Chicago.. Wm. T. Sedgwick,
21. 1902. Dec. 30-31....Washington, D.C.. J. McK. Cattell,
22. 1903. Dec. 29-30....St. Louis, Mo.W. Trelease,
23. 1904. Dec. 27-28....Philadelphia, Penn.. E. L. Mark,
24. 1906. Dec. 28.....New York City. C. B. Davenport,
25. 1907. Dec. 31.....Chicago, Ill....J. P. McMurrich,
26. 1908. Dec. 31.....Baltimore, Md.. D. P. Penhallow,
27. 1909. Dec. 29.....Boston, Mass.....T. H. Morgan,

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ORIGINAL CALL.

MARCH, 1883.

The following is a copy of the original call for the first meeting, which was issued by Professor Samuel F. Clarke, of Williamstown:—

A number of American workers in Biology, desiring to have established an association of American naturalists for business purposes, extend to you a cordial invitation to join a movement looking toward that end.

The intention is to have an annual meeting, for the purpose of discussing topics of common interest, for which, at present, no opportunity is afforded; as, for example, museum interests, in connection with which each museum director could indicate his plan of work, the special group of which he was making exhaustive collections, so that work may not be uselessly duplicated in many places; methods of museum work; methods of exhibition, etc.; methods of laboratory work; laboratory technique; new and valuable points in staining, mounting, cutting, and preserving of sections; systems of instruction in various departments of natural science; methods with small elective classes; with large college classes; the position which the observational sciences should hold in the college curriculum; the amount of natural science which should appear in college entrance examinations; the amount and character of such instruction in preparatory schools, etc.

It is further believed that such a society could materially influence for the better the cause of science in America; that it would have a very healthful general effect, and could exert a strong influence in many directions where at present it seems to be very much needed. It is proposed to have the first meeting, which will be preliminary to organization, and, therefore, of prime importance, at Springfield, Mass., in the Springfield High School Hall, Friday, April 10th.

The following gentlemen are interested in the enterprise, and nearly all of them will be among those present: [the names are J. M. Tylor, A. Hyatt, C. S. Minot, A. S. Packard, Jr., S. H. Scudder, H. N. Martin, W. T. Sedgwick, G. Macloskie, W. Libbey, H. F. Osborn, W. B. Scott, W. N. Rice, S. I. Smith; S. F. Clarke, (*Secretary*)].

FIRST MEETING.

SPRINGFIELD, MASS., APRIL, 1883.

FIRST DAY, APRIL 10TH.

In answer to a call issued in March, 1883, a number of naturalists met on April 10th, in the High School Hall, at 2 o'clock P.M., to discuss the advisability of forming a society of professional naturalists. Professor Alpheus Hyatt was elected to the chair, and Professor Samuel F. Clarke was elected Secretary. In response to a request from the Chair, the Secretary, who had issued the call for the meeting, made some general remarks upon the object of the movement and the degree of interest expressed therein. Professor A. S. Packard, Jr., expressed his interest in, and sympathy with, the enterprise, and suggested very valuable work of various kinds. Dr. Packard also raised the question of the feasibility of uniting this project with the American Association for the Advancement of Science. Dr. C. S. Minot spoke on this latter question, taking the ground that, as the American Association comprises a very large and varied membership and has such multifarious interests, it would be very difficult to pursue any definite line of professional work without interruption within that body; secondly, as the association meets in such widely distant localities it would be impossible to maintain a constant attendance of the same persons for continuing the same line of work; thirdly, if this enterprise be kept separate it will be a more distinct and definite, and, therefore, a much more highly effective organization. If a few men, who are thoroughly in earnest, meet together at an appointed place and time, for a single definite purpose, the chances are all in favor of their accomplishing something worth the doing.

Professor W. N. Rice followed on the same question. He agreed in the main with the points made by Dr. Minot, and held that the character of the membership of the two organizations was decisive in regard to the advisability of uniting the two. Professor Rice then

Moved, That this be formed as a distinct organization. The motion was seconded by Dr. Packard. *Carried*.

Professor Packard then introduced the question of membership, suggesting that it be restricted to professional naturalists. Professor J. M. Tylor spoke in favor of admitting medical men. It was then, by Professor Rice,

Moved, That Museum Officers, Instructors in Natural History, Physicians, and others professionally devoted to some branch of Natural History, be eligible to membership. Seconded by Professor Tylor. *Carried.*

The question of the geographical limit within which meetings can be held was the next topic considered. After remarks by nearly all present, including the Chair, Dr. Minot

Moved, That the limits be as follows:—

The New England and Middle States and the District of Columbia; and that the meetings be peripatetic. Seconded by Professor J. H. Pillsbury. *Carried.*

Dr. Minot

Moved, That a regular meeting be held in the spring of each year; that this be considered the first of such meetings; and at each regular meeting it be determined whether any additional meeting or meetings be held that year. Seconded by Professor Rice. *Carried.*

Dr. Minot

Moved, That the officers of the society consist of a President; two Vice-Presidents, a Secretary, and a Treasurer, and that they constitute the Executive Committee of the Society. Seconded by Professor Tylor. *Carried.*

Professor Rice offered the following

Motion: That the President be reëligible once, the Vice-Presidents reëligible twice, and that all the officers be elected annually. Seconded and *carried.*

Professor Rice

Moved, That nominations for membership be sent in to the Executive Committee, and be recommended by that committee to the society, which shall vote upon such names. Seconded and *carried*.

Professor Rice

Moved, That the society form a branch or branches in other parts of the country. Seconded and *carried*.

Professor Tylor

Moved, That the Chair appoint a committee of three to draft a constitution, and report as early as possible. Seconded and *carried*.

The Chair appointed Professor Rice, of Wesleyan University, Professor Pillsbury, of Springfield, and Professor S. F. Clarke, of Williams College.

The meetings then adjourned to meet at ten o'clock the next morning, in the same rooms.

(Signed)

SAMUEL F. CLARKE,
Secretary.

SECOND MEETING, AT NEW YORK, N. Y.

FIRST DAY, DECEMBER 27, 1883.

SCHOOL OF MINES, COLUMBIA COLLEGE.

Morning Session.

President Alpheus Hyatt in the chair. The minutes of the preceding meeting were read and accepted. The resignation of the secretaryship by Prof. S. F. Clarke was announced by the Secretary *pro tem.*

It was moved by Prof. Wilder, and carried, that his resignation be accepted, and that the Chair and Secretary be instructed to express to Professor Clarke the gratitude of the society for his invaluable services in organizing the society, and acting as Secretary.

Dr. C. S. Minot was elected Secretary.

The Secretary communicated the informal report of the Executive Committee. Owing to the unorganized condition of the society, only questions of a preliminary nature could be considered by the committee. Their principal work has been in securing the adherence of as many as possible of the leading naturalists to the society, and this duty has devolved chiefly upon the President and the Secretary, at first Professor Clarke, subsequently Dr. Minot, who was appointed Secretary *pro tem.* upon Professor Clarke's departure to Europe. No efforts have been spared to secure as large an attendance and as valuable communications as possible for this meeting. Your committee believe that their success has exceeded the most sanguine expectations, and feel that the future usefulness and prosperity of the society is assured. Further information as to the work of the society will be given you by the President in his address. Your committee recommend that this be declared an annual meeting, and that hereafter the annual meetings be held during the week from Christmas to New Year's. Your committee further recommend that two members elected from the society at large be added to the Executive Committee.

The report of the committee was accepted.*

*The remainder of this report will be found in the Records, Vol. I, No. 1, 1884.

THE CONSTITUTION.

ARTICLE I.

NAME AND OBJECTS.

SECTION 1. This association shall be known as the American Society of Naturalists and shall consist of an Eastern Branch and a Central Branch and such other Branches as may be hereafter established.

SEC. 2. The object of this Society shall be the association of working naturalists for the discussion of methods of instruction, museum administration, and other objects of general interest to investigators and teachers of Natural Science; and for the adoption of such measures as shall tend to the advancement and diffusion of the knowledge of Natural Science.

ARTICLE II.

MEMBERS.

SECTION 1. Membership in this Society shall be limited to persons professionally engaged in some branch of Natural History, as, Instructors in Natural History, Officers of Museums and other Scientific Institutions, Physicians, and others, who have essentially promoted the Natural History Sciences by original contributions of any kind. Any member may present to the Executive Committee of the Society or of the Branch to which he belongs names of candidates for membership, and those candidates who are approved by the Committee may be elected to membership in the Society by a majority of the members present at any meeting of the Branch.

SEC. 2. Each member shall pay to the Treasurer of the Society an annual assessment of one dollar, which shall be considered due in advance at the annual meeting. Of this amount one-half shall be transferred by the Treasurer of the Society to the Treasurer of the Branch to which the member belongs and one-half shall be retained by the Treasurer of the Society. The name of any member two years in arrears for

annual assessments shall be erased from the list of the Society ; and no such person shall be restored until he has paid his arrearages or has been re-elected.

SEC. 3. Honorary members, exempt from the payment of dues, may be elected upon recommendation of the Executive Committee, by a two-thirds vote of the members present at any meeting of the Society. The number of honorary members is limited to five.

ARTICLE III.

OFFICERS.

SECTION 1. The officers of this Society shall be a President, a Chairman for each Branch, who shall act as Vice-President of the Society, a Secretary and a Treasurer. The Branches shall elect such other officers as their By-Laws provide.

SEC. 2. These officers, except the Chairmen of the Branches, shall be elected by ballot at the annual meeting of the Society, and their official term shall commence at the close of the annual meeting.

SEC. 3. The officers named in Section 1 shall discharge the duties usually assigned to these respective officers ; they, together with two members elected from the Society at large, shall constitute the Executive Committee. The Executive Committee shall recommend to the Society from time to time such measures as they may deem expedient for the purposes of the Society, besides discharging the specific duties assigned to them by this Constitution.

SEC. 4. Vacancies in the board of officers, occurring by death, resignation, or otherwise, may be filled by election by ballot at any meeting of the Society. A vacancy in the Secretaryship or Treasurership occurring in the interval of the meetings of the Society, may be filled by appointment by the Executive Committee ; but the person so appointed shall hold office only until the next meeting of the Society.

ARTICLE IV.

MEETINGS.

SECTION 1. The annual meeting shall be held during Convocation week, unless otherwise ordered by the Executive Committee.

SEC. 2. Special meetings may be appointed at any time by a vote of the Society or of the Executive Committee.

ARTICLE V.

QUORUM.

Seven members shall constitute a quorum of the Society, and three a quorum of the Executive Committee.

ARTICLE VI.

ACCOUNTS.

A committee shall be appointed at each annual meeting to audit the accounts of the Treasurer for the year closing with that meeting.

ARTICLE VII.

AFFILIATED SOCIETIES.

The Society may affiliate with other scientific organizations.

ARTICLE VIII.

BY-LAWS.

SECTION 1. By-Laws recommended by the Executive Committee may be adopted at any meeting by a majority vote.

SEC. 2. By-Laws may be repealed at any meeting, upon recommendation of the Executive Committee, by a majority vote.

ARTICLE IX.

AMENDMENTS.

Amendments to the Constitution, recommended by the Executive Committee, may be adopted at any annual meeting by a vote of two-thirds of the members present.

BY-LAWS.

1. A committee of three, to include the Secretary, shall be appointed by the Executive Committee to arrange a programme for each meeting.
2. At the opening of the annual meeting a committee of five shall be appointed to nominate officers for the ensuing year.

NEW TEMPORARY PLAN FOR THE SOCIETY.

At the Baltimore meeting in 1908 Professor T. H. Morgan presented on behalf of the Executive Committee the following plan which was temporarily adopted:

"It is suggested that the next meeting of the Society be devoted to the study of evolution in all of its many-sided aspects (historical, environmental, experimental, etc.) There is no subject that would so well hold together all the present members (including botanists, zoologists, physiologists, anatomists, paleontologists, anthropologists, etc.) It is proposed therefore that each year, for a period to be determined by the Society, original contributions dealing with evolutionary matters be presented at one or more of the sessions of the American Society of Naturalists. It may also prove desirable to have reports each year of the most important recent work in evolution, in several of its different aspects (botany, zoölogy, paleontology, etc.) In this way members could be kept in touch with the most important advances in different departments. Such reviews should be given by men eminent in their respective fields."

Professor Morgan moved on behalf of the Executive Committee that:

First, The study of evolution be the general policy of the Society for the ensuing year, and until otherwise ordered.

Second, That the program consist of original contributions on the subject of evolution, and of reports, demonstrations, etc., of important recent work in this field.

This motion was adopted. The unusual success of the recent meeting in Boston seemed a sufficient guarantee to continue the same policy for another year.

LIST OF OFFICERS SINCE 1905.

1906.

- President, C. B. DAVENPORT. (WILLIAM JAMES, resigned.)
Vice-Presidents, $\left\{ \begin{array}{l} \text{C. B. DAVENPORT (elected President),} \\ \text{Chairman of Eastern Branch.} \\ \text{H. H. DONALDSON, Chairman of Central} \\ \text{Branch.} \end{array} \right.$
Secretary, W. E. CASTLE.
Treasurer, H. VON SCHRENK.
Secretary Central Branch, W. J. MOENKHAUS.
Additional Members of Executive Committee.
E. L. MARK. WILLIAM TRELEASE.

1907.

- President, J. P. McMURRICH.
Vice-President, D. P. PENHALLOW, Chairman Eastern Branch
Secretary, E. L. THORNDIKE.
Treasurer, H. VON SCHRENK.
Secretary Central Branch, THOS. G. LEE.
Additional Members of Executive Committee.
C. B. DAVENPORT. W. R. COE.

1908.

- President, D. P. PENHALLOW.
Vice-Presidents, $\left\{ \begin{array}{l} \text{T. H. MORGAN, Chairman of Eastern} \\ \text{Branch.} \\ \text{R. A. HARPER, Chairman of Central} \\ \text{Branch.} \end{array} \right.$
Secretary, H. McE. KNOWER.
Treasurer, H. VON SCHRENK.
Secretary Central Branch, THOS. G. LEE.
Additional Members of Executive Committee.
O. W. CALDWELL. W. R. COE.

1909.

President, T. H. MORGAN.

Vice-Presidents, $\begin{cases} W. H. HOWELL, \text{ Chairman of Eastern} \\ \text{Branch.} \\ R. A. HARPER, \text{ Chairman of Central} \\ \text{Branch.} \end{cases}$

Secretary, H. McE. KNOWER.

Treasurer, H. von SCHRENK.

Secretary Central Branch, THOS. G. LEE.

Additional Members of Executive Committee.

D. T. McDUGAL. C. H. JUDD.

PRESENT OFFICERS.

1910.*

President, D. T. McDUGAL.

Vice-President, H. S. JENNINGS, Chairman of Eastern Branch.

Secretary, C. R. STOCKARD.

Treasurer, E. M. EAST.

Additional Members of Executive Committee.

R. PEARL. F. BOAS.

*Officers of Central Branch not yet elected for this year.

LIST OF HONORARY MEMBERS.

AGASSIZ, ALEXANDER, LL.D.

Director of the Museum of Comparative Zoölogy.

36 Quincy street, Cambridge, Mass.

*WHITMAN, C. O., A.M.; Ph.D., LL.D.

Professor of Zoölogy, University of Chicago.

University of Chicago, Chicago, Ill.

LIST OF MEMBERS.

(A star denotes original membership.)

- C. On membership list of the Central Branch.
 - E. On membership list of the Eastern Branch.
-
- E. ADAMI, JOHN GEORGE, M.A., M.D., F.R.S.
Professor of Pathology, McGill University.
McGill Medical College, Montreal, Canada.
 - C. ADAMS, CHARLES CHRISTOPHER, Ph.D.
Associate in Animal Ecology, University of Illinois.
Urbana, Ill.
 - E. ADLER, ISAAC, M.D.
Professor of Medicine, New York Polyclinic.
22 East 62d street, New York, N. Y.
 - C. AIKEN, F. M.
46 Warren avenue, E. Detroit, Mich.
 - C. ALLEN, BENNETT, M., Ph.D.
Assistant Professor of Anatomy.
University of Wisconsin, 710 Conklin place, Madison, Wis.
 - E. ALLEN, JOEL ASAPH, Ph.D.
Curator of the Department of Mammalogy and
Ornithology.
*American Museum of Natural History, 77th street
and Central Park West, New York, N. Y.*
 - E. ALLIS, EDWARD P., JR., LL.D.
Palais de Carnoles, Mentone, (A.M.) France.
 - E. AMES, OAKES, A.B., M.A.
Director of Botanic Garden of Harvard University.
North Easton, Mass.
 - E. ATKINSON, GEORGE FRANCIS, Ph.B.
Professor of Botany, Cornell University.
Ithaca, N. Y.
 - C. ATWELL, CHARLES B.
Professor of Botany, Northwestern University.
Evanston, Ill.

- E. BAKER, FRANK, A.M., Ph.D., M.D.
Superintendent, National Zoölogical Park. Professor
of Anatomy, Georgetown University.
1728 Columbia Road, Washington, D. C.
- E. BALCH, F. N.
60 State street, Boston, Mass.
- E. BALDWIN, J. MARK, Ph.D., D.Sc., LL.D.
Care Johns Hopkins University, Baltimore, Md.
- C. BARDEEN, CHARLES R., A.B., M.D.
Professor of Anatomy, University of Wisconsin.
Madison, Wis.
- E. BARKER, LEWELLYS F., M.D.
Professor of Medicine, Johns Hopkins University;
Physician-in-chief, Johns Hopkins Hospital.
1035 N. Calvert street, Baltimore, Md.
- E. BARNHART, JOHN HENDLEY, A.M., M.D.
Editor, Torrey Botanical Club. Editorial Assistant,
*New York Botanical Garden, Bronx Park, New
York City, N. Y.*
- E. BARTLETT, CHARLES J.
Professor of Pathology, Yale Medical School.
209 York street, New Haven, Conn.
- E. BARTON, B. W., M.D.
Middlebury, Va.
- E. BECKWITH, PAUL EDMOND.
Assistant Curator, Division of History.
U. S. National Museum, Washington, D. C.
- C. BENSLEY, ROBERT RUSSELL, A.B., M.B.
Professor of Anatomy, University of Chicago.
University of Chicago, Chicago, Ill.
- E. BERGEY, DAVID HENDRICK, M.D.
Assistant Professor of Bacteriology, University of
Pennsylvania.
34th and Locust streets, Philadelphia, Pa.

- E. *BICKMORE, ALBERT SMITH, Ph.D., LL.D.
Professor in charge of Department of Public Instruction
of the American Museum of Natural History.
77th street and Central Park West, New York, N. Y.
- E. BIGELOW, HENRY BRYANT, A.B., A.M., Ph.D.
Assistant, Museum of Comparative Zoölogy, Harvard
University.
Cambridge, Mass.
- E. BIGELOW, MAURICE ALPHEUS, Ph. D.
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Teachers College, New York, N. Y.
- E. BIGELOW, ROBERT P., Ph.D.
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- C. BIRGE, EDWARD ASABEL, A.B., A.M., Ph.D., D.Sc., LL.D.
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744 Langdon street, Madison, Wis.
- E. BLAKESLEE, ALBERT FRANCIS, Ph. D.
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77th street and Central Park West, New York, N. Y.
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Ohio University, Athens, Ohio.
- E. *BOWDITCH, HENRY P., A.M., M.D., D.Sc., LL.D.
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School.
Jamaica Plains, Boston, Mass.
- E. BRADLEY, J. CHESTER, M.Sc.
Cornell University, Ithaca, N. Y.
- E. BRANNER, JOHN CASPER, Ph.D.
Professor of Geology, Leland Stanford Junior University.
Stanford University, California.

- C. BRANNON, MELVIN A., A.B.
Professor of Biology.
University of North Dakota, Grand Forks, North Dakota.
- E. BREED, R. S., Ph.D.
Professor of Biology.
Allegheny College, Meadville, Pa.
- C. BREISACHER, LEO, M.D.
Professor of Clinical Gastro-Enterology, Harper Hospital.
71 Washington avenue, Detroit, Mich.
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Professor of Biology, New York University.
University Heights, New York City.
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- C. BUDDINGTON, ROBERT A., A.M.
Associate Professor of Zoölogy.
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- E. BUMPUS, HERMON CARY, Ph.D., D.Sc.
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- E. BURNHAM, WILLIAM H.
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University of Chicago, Chicago, Ill.
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Columbia University, New York, N. Y.
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Office of Light House Board, Washington, D. C.
- E. CASTLE, WILLIAM ERNEST, A.B., A.M., Ph.D.,
Professor of Zoölogy, Harvard University.
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- E. CATTELL, J. McKEEN, Ph.D.,
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Columbia University, New York, N. Y.

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Williamstown, Mass.
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Connecticut Agricultural Exper. Station.
New Haven, Conn.
- E. COE, WESLEY R., Ph.D.
Professor of Biology.
Yale University, New Haven, Conn.
- C. COGHLILL, GEORGE ELLETT, A.M., Ph.D.
Professor of Zoölogy.
Denison University, Granville, Ohio.
- E. COKER, WILLIAM CHAMBERS, Ph.D.
Professor of Botany, University of North Carolina.
Chapel Hill, N. C.

- E. COLE, LEON J., Ph.D.
Associate Professor of Experimental Breeding, College of Agriculture.
University of Wisconsin, Madison, Wis.
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- E. *CONN, H. W., Ph.D.
Professor of Biology, Wesleyan University.
Middletown, Conn.
- E. COOK, MEL. J.
Plant Pathologist.
Newark, N. J.
- C. COPELAND, E. B., Ph.D.
Dean College of Agriculture.
Los Baños, Philippine Islands.
- C. COPELAND, W. F., Ph.D.
Professor of Elementary Science, Ohio University
Athens, Ohio.
- C. COULTER, JOHN MERLE, Ph.D.
Professor of Botany.
University of Chicago, Chicago, Ill.
- C. COULTER, STANLEY M.
Professor of Biology, Dean of School of Science.
Purdue University, La Fayette, Ind.
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